

ABSTRACT

5       The present invention relates to a catalyst for homo-polymerization or co-polymerization of ethylene, or more particularly to a solid complex titanium catalyst for homo-polymerization or co-polymerisation of ethylene, said catalyst being produced by preparing a magnesium solution by contact-reacting a halogenated magnesium compound with alcohol, reacting said solution with an ester compound having at least one hydroxy group and a boron compound having an  
10   alkoxy group, and then reacting said solution with a mixture of a titanium compound and a silicon compound. The catalyst of the present invention has good activity, and the polymers produced by means of the catalyst herein has advantages in that the polymers have high bulk density with narrow particle distribution and a reduced amount of fines particles.